Format No: CP/TF/01

## TEST REPORT ON COARSE AGGREGATES

| | | |
|---|---|---|
| **Lab ID** | : | **CP-2018-06-11-07** **Date: 14-06-18** |
| **Customer** | : | Assistant Executive Engineer, Dasarahalli Sub Division, BBMP, Bangalore. |
| **Address** | : | Dasarahalli Sub Division, BBMP, Bangalore. |
| **Project Name** | : | Improvements to drains at Bagalagunte old village (Surrounding of Maramma temple) in Bagalagunte in ward No.14 |
| **Agency** | : | Sri. Ranganna.KM, No.05, 2nd cross, Siddeshwara Layout, Sidedahalli, Bangalore-72 |
| **Customer's Reference** | : | EE/DD/WO/304/2017-18 |
| **Source of Sample** | : | Sample supplied by Agency |
| **Sample condition** | : | Satisfactory |
| **Date of Receipt** | : | 11-06-18 |
| **Sample ID No** | : | 2018-06-11-07 /02(a) |
| **Sample Type** | : | 40mm down size coarse aggregate |
| **Reference to BIS codes** | : | IS: 383:2016 (Specification for Coarse and fine Aggregates )<br>IS: 2386 :1963(Part - 1,3,4) RA2011<br>IS 2386 Part 1: Particle Size and Shape<br>IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption<br>IS 2386 Part 4: Mechanical Properties |
| **Date of test** | : | 11-06-18 |

**SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 40MM DOWN COARSE AGGREGATE:**

**Total weight taken : 15000 grams**

| Sample No. | Sieve No. | Weight Retained in gms | Cumulative Weight Retained in gms | % Cumulative Weight Retained | % Passing | Required as per IS 383:2016 |
|---|---|---|---|---|---|---|
| 1 | 80 mm | 0 | 0 | 0.0 | 100 | 100 |
| 2 | 40 mm | 354 | 354 | 2.4 | 97.6 | 90-100 |
| 3 | 20 mm | 7149 | 7503 | 50.0 | 50.0 | 30-70 |
| 4 | 10 mm | 4526 | 12029 | 80.2 | 19.8 | 10-35 |
| 5 | 4.75 mm | 2388 | 14417 | 96.1 | 3.9 | 0-5 |
| 6 | Pan | 583 | 15000 | 100.0 | 0 | --- |



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# TEST REPORT ON COARSE AGGREGATES

**Lab ID** : CP-2018-06-11-07 **Date: 14-06-18**

**Sample ID No** : 2018-06-11-07 /02(a)

## PHYSICAL PROPERTIES

| Sl.no | Tests | Result | Requirements as per IS:383-2016 |
|---|---|---|---|
| 1 | Flakiness Index(%) | 9.1 | Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate |
| 2 | Elongation Index(%) | 10.5 | |
| 3 | Specific Gravity | 2.64 | – |
| 4 | Bulk Density(Loose) (Kg/l) | 1.48 | – |
| 5 | Bulk Density(Compacted) (Kg/l) | 1.52 | – |
| 6 | Water Absorption(%) | 0.18 | – |

**Note:**

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Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL PRO Sig. Date BANGALORE



****End of Report****

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# TEST RESULTS OF STEEL

| | | |
|---|---|---|
| **Lab ID** | : | **CP-2018-06-11-07** **Date: 13-06-18** |
| **Customer** | : | Assistant Executive Engineer, Dasarahalli Sub Division, BBMP, Bangalore. |
| **Address** | : | Dasarahalli Sub Division, BBMP, Bangalore. |
| **Project Name** | : | Improvements to drains at Bagalagunte old village (Surrounding of Maramma temple) in Bagalagunte in ward No.14 |
| **Agency** | : | Sri. Ranganna.KM, No.05, 2nd cross, Siddeshwara Layout, Sidedahalli, Bangalore-72 |
| **Customer's Reference** | : | EE/DD/WO/304/2017-18 |
| **Source of Sample** | : | Sample supplied by Agency |
| **Sample Condition** | : | Satisfactory |
| **Date of Receipt** | : | 11-06-18 |
| **Sample ID No** | : | 2018-06-11-07 /04 |
| **Sample Type** | : | Sunvik |
| **Reference to BIS codes** | : | IS 1786-2008, IS:1608-2005(RA 2011), IS 1599-2012. |
| **Date of test:** | : | 12-06-18 |

| Sl.No | Identification of sample | Grade of the sample | Diameter of the steel bar | Weight of the sample | Yield stress | Tensile strength | Elongation | Bend test | Rebend test |
|---|---|---|---|---|---|---|---|---|---|
| | | | (mm) | (kg/m) | (N/mm2) | (N/mm2) | (%) | | |
| 1 | Sunvik | Fe500 | 8 | 0.391 | 512 | 652 | 20.0% | Satisfactory | Satisfactory |
| 2 | Sunvik | Fe500 | 10 | 0.616 | 528 | 672 | 20.0% | Satisfactory | Satisfactory |
| 3 | Sunvik | Fe500 | 12 | 0.888 | 544 | 668 | 20.0% | Satisfactory | Satisfactory |

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Quality Manager

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## TEST REPORT ON COARSE AGGREGATES

| | | |
|---|---|---|
| **Lab ID** | : | **CP-2018-06-11-07** **Date: 13-06-18** |
| **Customer** | : | Assistant Executive Engineer, Dasarahalli Sub Division, BBMP, Bangalore. |
| **Address** | : | Dasarahalli Sub Division, BBMP, Bangalore. |
| **Project Name** | : | Improvements to drains at Bagalagunte old village (Surrounding of Maramma temple) in Bagalagunte in ward No.14 |
| **Agency** | : | Sri. Ranganna.KM, No.05, 2nd cross, Siddeshwara Layout, Sidedahalli, Bangalore-72 |
| **Customer Reference** | : | EE/DD/WO/304/2017-18 |
| **Source of Sample** | : | Sample supplied by Agency |
| **Sample Condition** | : | Satisfactory |
| **Date of Receipt** | : | 11-06-18 |
| **Sample ID No** | : | 2018-06-11-07 /02(b) |
| **Sample Type/ Size** | : | 20mm down size coarse aggregate |
| **Reference to BIS codes** | : | IS: 383:2016 (Specification for Coarse and fine Aggregates )<br>IS: 2386 :1963(Part - 1,3,4) RA2011<br>IS 2386 Part 1: Particle Size and Shape<br>IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption<br>IS 2386 Part 4: Mechanical Properties |
| **Date of test** | : | 11-06-18 |

**SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 20MM DOWN COARSE AGGREGATE:**

**Total weight taken : 5000 grams**

| Sample No. | Sieve No. | Weight Retained in gms | Cumulative Weight Retained in gms | % Cumulative Weight Retained | % Passing | Required as per IS 383:2016 |
|---|---|---|---|---|---|---|
| 1 | 40 mm | 0 | 0 | 0 | 100 | 100 |
| 2 | 20 mm | 155 | 155 | 3.1 | 96.9 | 90-100 |
| 3 | 10 mm | 3344 | 3499 | 70.0 | 30.0 | 25-55 |
| 4 | 4.75 mm | 1285 | 4784 | 95.7 | 4.3 | 0-10 |
| 5 | Pan | 216 | 5000 | 100 | 0 | – |



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## TEST REPORT ON COARSE AGGREGATES

**Lab ID** : **CP-2018-06-11-07** **Date: 13-06-18**

**Sample ID No** : 2018-06-11-07 /02(b)

### PHYSICAL PROPERTIES

| Sl.no | Tests | Result | Requirements as per IS:383-2016 |
|---|---|---|---|
| 1 | Flakiness Index(%) | 11.8 | Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate |
| 2 | Elongation Index(%) | 12.6 | |
| 3 | Specific Gravity | 2.62 | – |
| 4 | Bulk Density(Loose) (Kg/l) | 1.44 | – |
| 5 | Bulk Density(Compacted) (Kg/l) | 1.52 | – |
| 6 | Water Absorption(%) | 0.29 | – |
| 7 | Aggregate crushing Value(%) | 23.9 | Max 30% for Aggregates to be used in concrete for wearing Surface, In case Aggregate Crushing Value Exceeds 30% then the test for ten percent fines should be conducted for Aggregates to be used in concrete other than for wearing Surface. |
| 8 | Aggregate Impact Value(%) | 22.7 | 30% for Aggregates to be used in concrete for wearing Surface, 45% for Aggregates to be used in concrete other than for wearing Surface. |

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**FOR CIVIL Pro.**

**R KARTHIK RECHAN**
Authorized Signature
**Quality Manager**

CIVIL Pro Sig..... Date ..... BANGALORE

ಜಿಲ್ಲಾಧಿಕಾರಿಗಳ ಕಾರ್ಯಾಲಯ ಆವರಣ
ಜೆ.ಸಿ.ರಸ್ತೆ, ಉಪ-ಕೋಷ್ಟಕ
ಬೆಂಗಳೂರು ನಗರ ಜಿಲ್ಲೆ
ಬೆಂಗಳೂರು


End of Report*

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